of frequencies at which distribution of secondary messenger substances controlling cell growth in the cells of the vessel [(3; 3''')] is influenced.

2. (amended) The [A] device of claim 1, wherein [as set forth in claim 1 characterised in that] the excitation device produces the stimulation currents without contact [(5; 5''') is adapted for contact-lessly producing the stimulation currents].

3. (amended) The [A] device of claim 1, wherein [as set forth in claim 1 or claim 2 characterised in that] the frequency and/or the modulation frequency of the stimulation currents is in the range of frequencies at which the distribution of cyclic adenosine monophosphate (cAMP) in the cells of the vessel [(3; 3''')] is inhibited or stimulated.

4. (amended) The [A] device of claim 1, wherein [as set forth in one of the preceding claims characterised in that]

the excitation device produces [(5; 5''') is adapted to produce] stimulation currents having [whose] frequency and/or modulation frequency [is] in the range of frequencies at which distribution of secondary messenger substances producing cell growth in the smooth muscle cells and/or the endothelium cells and/or the fibroblasts of a vessel [(3; 3''')] is inhibited or stimulated.

5. (amended) The [A] device of claim 1, wherein [as set forth in one of the preceding claims characterised in that]

the [excitation device (5; 5''') is adapted to produce] stimulation currents in the region to be treated of the vessel have [(3; 3''') at] a frequency and/or a modulation frequency of up to 200 Hz [, preferably between 10 and 100 Hz].

6. (amended) The [A] device of claim 1, wherein [as set forth in one of the preceding claims characterised in that] the excitation device comprises [(5; 5''') has] a time control device for producing [which is adapted to produce] a [stepwise or continuous] reduction in the level of stimulation intensity and/or the frequency of stimulation.

7. (amended) The [A] device of claim 1, wherein [as set forth in one of the preceding claims characterised in that] the excitation device directly induces [(5) is adapted for the

direct induction of] the stimulation currents [in the body tissue of the treatment region (3.1) of the vessel (3)].

8. (amended) The [A] device of claim 7, wherein [as set forth in claim 7 characterised in that] the excitation device comprises [(5) includes] an induction device [(5.1, 5.2, 5.3, 5.4)] for producing at least one local magnetic alternating field in the treatment region [(3.1)] of the vessel.

9. (amended) The [A] device of claim 7, wherein [as set forth in claim 7 or claim 8 characterised in that] the induction device comprises [(5.1, 5.2, 5.3, 5.4) includes] at least one horseshoe-shaped electromagnet [(5.1, 5.2)].

10. (amended) The [A] device of claim 9, wherein [as set forth in claim 9 characterised in that] the excitation device further comprises [has] a positioning device [(5.5)] for positioning at least one pole [(5.6, 5.7)] of the electromagnet [(5.1, 5.2)] with respect to the body [of the patient].

11. (amended) The [A] device of claim 1, wherein [as set forth in one of claims 1 through 6 characterised in that] the excitation device contactlessly introduces [(5.5''') is adapted for contact-lessly introducing] the stimulation energy to produce the stimulation currents into an implant [(2; 2'; 2''' 2'''; 2''''), in particular a stent], which is arranged in the region [(3.1; 3.1''')] to be treated of the vessel [(3; 3''')].

12. (amended) The [A] device of claim 11, wherein [as set forth in claim 11 characterised in that] the excitation device comprises [(5) includes] an induction device [(5.1, 5.2, 5.3, 5.4)] for inductively coupling the stimulation energy into the implant [(2; 2'; 2'')].

13. (amended) The [A] device of claim 11, wherein [as set forth in claim 11 characterised in that] the excitation device comprises [(5''') includes] a transmitter device [(5.9''')] for coupling the stimulation energy in the form of electromagnetic oscillations into the implant [(2'''; 2'''')], the implant comprising [which includes] an antenna element [(16; 16'''') designed in the manner of an antenna].

14. (amended) The [A] device of claim 13, further comprising [as set forth in claim 13 characterised in that there is provided] a device [(13)] for focusing the electromagnetic oscillations in the region of the implant [(2'''; 2'''')].

15. (amended) An implant for insertion into a vessel [(3)], in particular a blood vessel, of a human or animal body[, in particular a stent], said implant having an excitation device nearby, said implant comprising :

a tubular body [provided] for bearing against the wall of the vessel,

wherein [characterised in that] the tubular body comprises, in at least in a portion-wise manner , [comprises] a soft-magnetic material for concentration of a magnetic field produced by the [an] excitation device [(5) in its environment].

16. (amended) An implant for insertion into a vessel [(3; 3''')], in particular a blood vessel, of a human or animal body [, in particular a stent], wherein the implant stimulates [characterised in that it is adapted to stimulate] cells of the vessel [(3; 3''') in which it is implanted] by means of stimulation currents, such stimulation influencing cell-growth mechanisms.

17. (amended) The [An] implant of claim 16, wherein the implant couples out [as set forth in claim 16 characterised in that it is adapted to couple out inductively coupled-in] stimulation energy that is coupled-in in the form of stimulation currents.

18. (amended) The [An] implant of claim 17, wherein the implant comprises [as set forth in claim 17 characterised in that it includes] a tubular body [which is provided] to bear against the wall of the vessel and

wherein the tubular body comprises, in at least a portionwise manner, [which is in the form of] an induction coil to provide a resonance circuit [(7; 7'') at least in a portion-wise manner].

19. (amended) The [An] implant of claim 16, wherein the implant comprises an antenna element [as set forth in claim 16 characterised in that it is adapted] to couple out stimulation energy coupled in by means of electromagnetic waves, in the form of stimulation currents [, wherein it includes an antenna element (16; 16'''') designed in the manner of an antenna].

20. (amended) The [An] implant of claim 19, wherein the implant comprises [as set forth in claim 19 characterised in that it includes a tubular body which is provided to bear against the wall of the vessel and which is designed in the manner of] a dipole antenna.

21. (amended) The [An] implant of claim 16, comprising [as set forth in one of claims 16 through 20 characterised in that there is provided] a coupling-out unit comprising [(8; 8'; 8"; 8"") which includes] a conversion unit [(8.3; 8.3'; 8.3"; 8.3"")] for conversion of the coupled-in stimulation energy into stimulation currents.

22. (amended) The [An] implant of claim 21, wherein [as set forth in claim 21 characterised in that] the conversion unit comprises [(8.3; 8.3'; 8.3"; 8.3"") includes] an electronic circuit for conversion of a high-frequency current into a stimulation current which involves a low frequency and/or low-frequency modulation.

23. (amended) The [An] implant of claim 22, wherein [as set forth in claim 22 characterised in that] the electronic circuit is provided in a coating on the implant [(2; 2'; 2"; 2"; 2"")].

24. (amended) The [An] implant of claim 23, wherein the implant couples out [as set forth in one of claims 16 through 23 characterised in that it is adapted to couple out] stimulation currents at a frequency and/or a modulation frequency of up to 200 Hz [, preferably between 10 and 100 Hz].

25. (amended) The [An] implant of claim 16, wherein the implant couples out [as set forth in one of claims 16 through 24 characterised in that it is adapted to couple out] stimulation currents whose frequency and/or modulation frequency is in the range of frequencies at which the distribution of secondary messenger substances controlling cell growth, in particular cyclic adenosine monophosphate (cAMP), in the cells of the vessel [(3; 3")] is influenced.

26. (amended) The [An] implant of claim 25, wherein the [as set forth in claim 25 characterised in that it is adapted to couple out stimulation currents whose] frequency and/or modulation frequency is in the range of frequencies at which the distribution of secondary

messenger substances controlling cell growth in the smooth muscle cells and/or the endothelium cells and/or the fibroblasts of the vessel [(3; 3''')] is influenced.

27. (amended) An arrangement comprising a stimulation device as set forth in claim 11 [or claim 12] and an implant as set forth in claim 17 [or claim 18 or comprising a stimulation device as set forth in claim 13 or claim 14 and an implant as set forth in claim 19 or claim 20].

Please add the following new claims:

28. (new) The device of claim 2, wherein

the frequency and/or the modulation frequency of the stimulation currents is in the range of frequencies at which the distribution of cyclic adenosine monophosphate (cAMP) in the cells of the vessel is inhibited or stimulated.

29. (new) The device of claim 3, wherein

the excitation device produces stimulation currents having frequency and/or modulation frequency in the range of frequencies at which distribution of secondary messenger substances producing cell growth in the smooth muscle cells and/or the endothelium cells and/or the fibroblasts of a vessel is inhibited or stimulated.

30. (new) The device of claim 28, wherein

the excitation device produces stimulation currents having frequency and/or modulation frequency in the range of frequencies at which distribution of secondary messenger substances producing cell growth in the smooth muscle cells and/or the endothelium cells and/or the fibroblasts of a vessel is inhibited or stimulated.

31. (new) The device of claim 5, wherein

the stimulation currents in the region to be treated of the vessel have a frequency and/or a modulation frequency in the range of from 10 to 100 Hz.

32. (new) The device of claim 30, wherein

the stimulation currents in the region to be treated of the vessel have a frequency and/or a modulation frequency of up to 200 Hz.

33. (new) The device of claim 32, wherein

the stimulation currents in the region to be treated of the vessel have a frequency and/or a modulation frequency in the range of from 10 to 100 Hz.

34. (new) The device of claim 6, wherein the reduction is stepwise.

35. (new) The device of claim 6, wherein the reduction is continuous.

36. (new) The device of claim 33, wherein the excitation device comprises a time control device for producing a reduction in the level of stimulation intensity and/or the frequency of stimulation.

37. (new) The device of claim 36, wherein the reduction is stepwise.

38. (new) The device of claim 36, wherein the reduction is continuous.

39. (new) The device of claim 8, wherein

the induction device comprises at least one horseshoe-shaped electromagnet.

40. (new) The device of claim 39, wherein

the excitation device further comprises a positioning device for positioning at least one pole of the electromagnet with respect to the body.

41. (new) The device of claim 36, wherein

the excitation device contactlessly introduces stimulation energy to produce the stimulation currents into an implant, which is arranged in the region to be treated of the vessel.

42. (new) The device of claim 11, wherein

the implant is a stent.

43. (new) The device of claim 41, wherein

the implant is a stent.

44. (new) The device of claim 41, wherein

the excitation device comprises an induction device for inductively coupling the stimulation energy into the implant.

45. (new) The device of claim 41, wherein

the excitation device comprises a transmitter device for coupling the stimulation energy in the form of electromagnetic oscillations into the implant, the implant comprising an antenna element.

46. (new) The device of claim 13, further comprising

a device for focusing the electromagnetic oscillations in the region of the implant.

47. (new) The implant of claim 18, comprising

a coupling-out unit comprising a conversion unit for conversion of the coupled-in stimulation energy into stimulation currents.

48. (new) The implant of claim 20, comprising

a coupling-out unit comprising a conversion unit for conversion of the coupled-in stimulation energy into stimulation currents.

49. (new) The implant of claim 47, wherein the conversion unit comprises an electronic circuit for conversion of a high-frequency current into a stimulation current which involves a low frequency and/or low-frequency modulation.

50. (new) The implant of claim 48, wherein the conversion unit comprises an electronic circuit for conversion of a high-frequency current into a stimulation current which involves a low frequency and/or low-frequency modulation.

51. (new) The implant of claim 49, wherein the electronic circuit is provided in a coating on the implant.

52. (new) The implant of claim 50, wherein the electronic circuit is provided in a coating on the implant.

53. (new) The implant of claim 51, wherein the implant couples out stimulation currents at a frequency and/or a modulation frequency of up to 200 Hz.

54. (new) The implant of claim 24, wherein the implant couples out stimulation currents at a frequency and/or a modulation frequency in the range of from 10 Hz to 100 Hz.

55. (new) The implant of claim 53, wherein the implant couples out stimulation currents at a frequency and/or a modulation frequency in the range of from 10 Hz to 100 Hz.

56. (new) An arrangement comprising a stimulation device as set forth in claim 13 and an implant as set forth in claim 19.